

**Reynolds Metals Company LLC /  
St. Lawrence Reduction Plant**

194 County Route 45  
P.O. Box 500  
Massena, NY 13662 USA

May 2, 2018

Justine Modigliani, P.E., Chief, Compliance Section  
Division of Enforcement and Compliance Assistance  
U.S. Environmental Protection Agency, Region 2  
290 Broadway, 20<sup>th</sup> Floor  
New York, New York 10007

Subject: Reynolds/Alcoa East Plant - USEPA Inspection August 29, 2017  
SPDES Permit No: NY0000132  
Response to Comments

Dear Ms. Modigliani:

This letter is in response to the United States Environmental Protection Agency's March 5, 2018 letter, regarding an August 29, 2017 EPA inspection conducted at the Reynolds/Alcoa East Plant, Massena, New York facility.

The Agency's comments are shown below, and Reynolds' responses follow.

**A. Potential Noncompliance Items**

**Comment:**

1. Based on an August 31, 2017, email from Mr. Bathelt, flow rate at Outfall 005 (a 24" outfall pipe) is estimated by timing the filling a 1 liter wide mouth bottle. However, this flow monitoring method is not accurate in monitoring flows through the outfall pipe that are wider than the wide mouth bottle - see photo 836 in Attachment IA. The permittee needs to establish a means of estimating the instantaneous flow rate that accounts for the full flow through the 24" discharge pipe. Special Condition H of the Permit states that monitoring of outfalls 005, 008 and 010 is not required if the outfall's flow rate is less than 5 gpm. Facility representatives stated that if it takes more than 3 seconds to fill a 1-liter bottle, than no sample is taken. Based upon a review of the ECHO database, Alcoa reported No Discharge on its DMR for Flow Rate at Outfall 005 on Jan, Feb, July and September 2015, January, May, July, August, September, October, and November 2016, and September 2017. Alcoa must ensure that it is able to monitor the flow rate for the entire width of flow so that monitoring and reporting of No Discharge in accordance with Special Condition H is accurate.

***Response***

The SPDES Permit requires that instantaneous flow be recorded once a week, and this is routinely completed each Tuesday. Considering that the sub-catchment associated with the outfall is relatively small (33 acres) and is a storm water only outfall, it is expected that flow at this outfall will be intermittent. Under these conditions, it is possible that the sampler could record a less than 5 gpm flow early in the day but have flow conditions change to exceeding the 5 gpm flow rate later in the day due to rainfall or snow melt events.

Reynolds acknowledges that there is inaccuracy associated with the current flow measurement procedures. It is Reynolds' intent to evaluate flow measurement options for Outfall 005 that could provide the required flow measurement accuracy needed. Once an option has been selected, a design for the flow measurement device will be developed. The designed modification of Outfall 005 will be submitted to the NYSDEC's Department of Water for review and approval prior to its construction. Reynolds plans to have the selected alternative installed and functioning by the end of 2018. Below is a tentative schedule for project completion:

<b><u>Task:</u></b>	<b><u>Projected Completion Date:</u></b>
1. Analyze options and select option for flow measurement	June 2018
2. NYSDEC Review of Outfall Modification and Approval	September 2018
3. Construction of selected Alternative	November 2018

**B. Areas of Concern**

1. Oil and Grease and PCB grab samples at Outfall 001 are collected from the composite sample tube not a direct grab. Oil and Grease samples under EPA Method 1664 are to be collected directly into a glass sample container. EPA Method 608 Part 9.1 for PCB sampling specifies that Automatic sampling equipment must be as free as possible of Tygon tubing and other potential sources of contamination.

***Response***

Sampling has been revised to be in compliance with EPA Method 608 Part 9.1 and EPA Method 1664. The grab sample is now collected using a sampling wand and glass container. This sampling procedure has been documented and posted at the Outfall 001 building.

2. The Permit does not contain any requirement for impingement/entrainment pursuant to Section 316(b) of the CWA. Any permits for future operations at the facility should consider requirements to comply CWA Section 316(b).

***Response***

**Reynolds assumes NYDEC will address these requirements in future permits.**

3. As shown in photos DSCN4822 (822) and 823 there was metal scrap material on-site that was said to be awaiting recycling/disposal. The material was under contract to be removed, but facility representatives indicated that lower scrap metal prices had impacted the financial viability of building demolition and scrap removal. Explain the status of the removal of the scrap material.

***Response***

**Scrap metal is currently being removed from the site, and this work is scheduled to be completed by the end of 2018.**

4. As shown in photos 824 there is vegetation growing at the 003 influent bar screen. Based on an August 31, 2017 email and photo from Mr. Bathelt the bar screen was cleaned (See Attachment 3). Please ensure to conduct proper operation and maintenance of this area.

***Response***

**As noted, the bar screen has been cleaned. Visual inspections will be performed by the waste water treatment operators and documented in the quarterly inspection reports. If it is found that vegetation is beginning to grow at the 003-influent bar screen, cleaning will be performed.**

5. As shown in photo 845 and 846 there was vegetation growing through 001 pond liner. Based on an email and photo from Mr. Bathelt dated on October 6, 2017 the pond liner was patched (See Attachment 2).

***Response***

**As noted, the pond liner has been repaired. Inspections will be performed on a quarterly basis and will be documented in the quarterly inspection reports.**

6. As shown in photo 844 the grit chamber had material settled at the bottom and appeared to be in need of cleaning. Additionally, following the inspection, the facility documented that a 3' walking path was cleared to access the 001-grit chamber (Attachment 9).

***Response***

**A plan is being developed for cleaning of the grit chamber by the end of Q3 2018. Visual inspections will be performed by waste water treatment operators and documented in quarterly inspection reports. The volume of accumulated grit will be gauged and documented on the inspection reports. The grit chamber is 5 feet deep and will be cleaned when grit accumulates in excess of 30-inches at the weir. This limit was selected because it will not impair the overall performance of the chamber and will allow for self-armoring to occur which will promote solids retention.**

7. Review of the lab spreadsheets for Fecal Coliform, CBOD and other parameters at Outfall 003 for June 2017 did not provide the date and time for analysis. Therefore, it was not possible from this data to determine if the sample was analyzed within holding times. Please ensure that the time and date of analysis in addition to the sampling time is provided.

***Response***

**The contracted laboratory reports that are provided to Reynolds include the date and time of analysis. The time and date of analysis is now being included in the electronic data deliverable from the laboratory, and the laboratory spreadsheet has been modified to include this information. Reynolds maintains copies of the contract laboratory reports, and the June 2017 lab reports have been included in Attachment 1.**

8. There is a note in the SPDES checklist for Outfall 010 on June 13, 2017 that settleable solids was not sampled or analyzed (See Attachment 5). And that the Flume requires maintenance (cleaning) will sample on Thursday (re-log). The Permit requires that representative weekly samples be conducted at Outfall 010 for Settleable Solids. Please explain why the June 13, 2017 sampling for settleable solids was not conducted.

***Response***

On June 20, 2017 (EPA noted the date as June 13, 2017), a sample was collected from Outfall 010. The sample had vegetation in the bottle that is not normally present in the Outfall 010 samples. The cause was attributed to the accumulation of vegetation particles in the floor of the weir. Reynolds made the decision to clean the weir and cancel (not submit the samples to the lab) the foam and settleable solids samples. The foam and settleable solids samples were collected again on June 23, 2017, in compliance with the weekly sampling requirements for these parameters. The sample results collected on June 23, 2017 were consistent with other sample results from previous months at Outfall 010. The lab reports from both June 20 and June 23 are included in Attachment 2 for reference.

Going forward, maintenance inspections will be conducted weekly and documented in an outfall maintenance checklist. Cleaning will be conducted as necessary to avoid the accumulation of vegetation in the outfall structure in the future.

9. As shown in Attachment 6, for Outfall 001 on June 13, 2017 no grab or composite sample was taken. The note said low flow, redone. Note that the low flow <5 gpm flow under Special Condition H applies to outfalls 005, 008, and 010 and not Outfall 001.

***Response***

The note was intended to indicate low flow from the ISCO sampler, not a low flow condition at the outfall for this event. The ISCO sampler failed to collect enough water to fill each of the required sample containers for the complete sampling event, hence the "low flow" note. The ISCO sampler settings were evaluated and reset to collect a sufficient volume of water for a complete sampling event. The outfall sampling event was completed on June 14, 2017, in compliance with the permit requirements and the lab report from the sampling event is included as Attachment 3.

10. As shown in Attachment 7 the SPDES Checklist for Sampling for August 29, 2017 at Outfall 005 recorded no flow at 7:50AM. During this August 29, 2017 there was a discharge from Outfall 005 in the early afternoon.

***Response***

The notation "No flow" was to indicate a flow of less than 5 gpm. The correct notation of "less than 5 gpm" will be used under these conditions in the future. Flow measurement has been addressed in response A1.

Justine Modigliani

May 2, 2018

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If you have any questions, please contact me by phone or email at (412) 315-2780 or Robyn.Gross@alcoa.com.

Very truly yours,



Robyn L. Gross  
Director, Asset Management Americas

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Attachments (3)

cc w/attachment: Joseph DiMura, NYSDEC  
David Rarick, NYSDEC  
Craig Peets, Alcoa  
Didi Grow, Alcoa  
Ryan Kingsley, CDM Smith  
p:\east\pc\2018\18057.doc

# Attachment 1

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ALS Group USA, Corp.  
dba ALS Environmental

#7

Analytical Report

**Client:** Alcoa, Incorporated  
**Project:** Alcoa (East Plant) - SPDES/COC # ALC12343  
**Sample Matrix:** Water  
  
**Sample Name:** AA1700450 E003SAE-24HR-WA-060617  
**Lab Code:** R1705129-005

**Service Request:** R1705129  
**Date Collected:** 06/06/17 00:01  
**Date Received:** 06/07/17 09:30

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date	
						Analyzed	Extracted Q
Carbonaceous Biochemical Oxygen Demand (CBOD)	SM 5210 B-2001(2011)	2.0	U mg/L	2.0	1	06/07/17 14:13	NA
Fluoride, undistilled	300.0	10.9	mg/L	0.40	4	06/09/17 19:45	NA
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U mg/L	0.20	1	06/08/17 22:30	06/08/17
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	530	mg/L	10	1	06/08/17 12:30	NA



# Life Science Laboratories, Inc.

## Laboratory Analysis Report

Prepared For

ALS Group USA Corp.dba ALS Environmental

Client Project ID: ALCOA, Inc. SPDES

LSL Project ID: 1707941

Lisa Reyes  
ALS Group USA Corp.dba ALS Environmental  
1565 Jefferson Rd.  
Bldg 300-Ste 360  
Rochester, NY 14623

Phone: (585) 288-5380  
FAX: (585) 288-8475

Nicole Polarolo; Dinora Grow

A copy of this report was sent to: ARCONIC / ALCOA

Sample ID: AA1700443 LSL Sample ID: 1707941-001  
Location: E003FECAL-GRAB-WA-060117 Receive Date/Time: 06/01/17 12:58  
Sampled: 06/01/17 7:45 Project Rec'd by: NJW  
Sampled By: BC Matrix: NPW

Analytical Method	Prep Method	Prep	Analysis	Analyst
Analyte	Result Units	Date	Date & Time	Initials
(2) SM 9222D-2006 Fecal Coliform, MF				
Fecal Coliforms, MF	<2 cfu/100ml		6/1/17 13:13	JRC

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody and the Sample Receipt documents submitted with these samples are considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

LSL Central Lab  
5854 Butternut Drive  
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Tel. (315) 445-1900  
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NYS DOH ELAP #10900

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16 N. Main St., PO Box 424  
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NYS DOH ELAP #11667

LSL Southern Tier Office  
Cuba, NY  
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LSL MidLakes Office  
Canandaigua, NY  
Tel. (585) 728-3320

This report was reviewed by:

*LaDonna Kibler*  
LaDonna Kibler, Quality Assurance

Date:

6/12/17

Analysis performed at: (1) LSL Central Lab, (2) LSL North Lab, (3) LSL Finger Lakes Lab

The state sanitary code states that acceptable drinking water must contain no coliform bacteria. In order to be acceptable your sample must be "negative". If your result is not "negative" then you should call your local health department for advice on how to improve your water's quality.

rpIC0003

Page 1 of 1

Date Printed:

6/6/17

## Attachment 2

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#8



ALCOA Massena Operations  
Analytical Report  
COC Number ALC12350

4/3/2018 10:34 AM

Sample Description E010-GRAB-WA-062017

Sample ID AA1700493

Sample Date 6/20/2017 4:00:00 AM

Lab ID 4

Project Number

Container

Sampled by V-Kingsl

<u>Analysis</u>	<u>Parameter</u>	<u>Results</u>	<u>Units</u>	<u>Prep Date</u>	<u>Analysis Date</u>
FLOW	Flow_gpd	26691	gpd		6/30/2017 8:45:09 AM
FLOW	Flow_mgd	0.026691	mgd		6/30/2017 8:45:09 AM
PH	pH	6.98	SU		6/20/2017 11:48:48 AM

Vegetation in flume. Will clean outfall and re-log Foam, Settleable Solids and Flow for  
Thursday 6/22/17.-----Posted by GROWDG 06/20/2017 09:59:

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ALCOA Massena Operations  
Analytical Report  
COC Number ALCI2354

4/3/2018 10:34 AM

Sample Description E010-GRAB-WA-062317  
E010-GRAB-WA-062217

Sample ID AA1700497

Sample Date 6/23/2017 8:15:00 AM

Priority 4

Project Number

Customer

Sampled by growdg

<u>Analysis</u>	<u>Parameter</u>	<u>Results</u>	<u>Units</u>	<u>Prep Date</u>	<u>Analysis Date</u>
FOAM_STAT	Foam	No Foam		6/23/2017 8:20:00 AM	6/27/2017 10:54:45 AM
*SETTLE_SOL	SOLIDS, SETTLEABLE	<0.10	mL/L/HR		6/28/2017 3:10:41 PM
FLOW	Flow_gpd	21779	gpd		6/30/2017 8:45:43 AM
FLOW	Flow_mgd	0.021779	mgd		6/30/2017 8:45:43 AM

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## Attachment 3



ALCOA Massena Operations  
Analytical Report  
COC Number ALC12348

4/3/2018 10:41 AM

Sample Description E001-24HR-WA-061417

Sample ID AA1700473

Sample Date 6/14/2017 12:01:00 AM

Priority 4

Project Number

Customer

Sampled by V-Kingsl

Analysis	Parameter	Results	Units	Prep Date	Analysis Date
*ALUMINUM	Aluminum	210.00	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*ALUMINUM	AluminumLBS	0.0600	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*FLUORIDE	FLUORIDE -LBS	2.9	lbs/day		6/21/2017 12:00:00 AM
*FLUORIDE	FLUORIDE, TOTAL (AS F)	10.2000	mg/L		6/21/2017 12:00:00 AM
ISCO_TEMP	ISCO REFRIGERATOR TEMPERATURE	3.0	DEGC		6/14/2017 10:19:40 AM
*PAH_610	ACENAPHTHENE-MS	84	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ACENAPHTHYLENE-MS	107	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ANTHRACENE-MS	79	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(A)ANTHRACENE-MS	91	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(A)PYRENE-MS	72	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(B)FLUORANTHENE-MS	92	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(GHI)PERYLENE-MS	88	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(K)FLUORANTHENE-MS	94	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	CHRYSENE-MS	91	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	DIBENZO(AH)ANTHRACENE-MS	85	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	FLUORANTHENE-MS	91	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	FLUORENE-MS	89	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	INDENO(1,2,3-CD)PYRENE-MS	88	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	NAPHTHALENE-MS	80	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	PHENANTHRENE-MS	85	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM

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ALCOA Massena Operations  
Analytical Report  
COC Number ALC12348

4/3/2018 10:41 AM

Sample Description E001-24HR-WA-061417

Sample ID AA1700473

Sample Date 6/14/2017 12:01:00 AM

Priority 4

Project Number

Customer

Sampled by V-Kingsl

Analysis	Parameter	Results	Units	Prep Date	Analysis Date
*PAH_610	P-TERPHENYL -MS	100	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	PYRENE-MS	90	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ACENAPHTHENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ACENAPHTHENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ACENAPHTHYLENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ACENAPHTHYLENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ANTHRACENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	ANTHRACENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(A)ANTHRACENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(A)ANTHRACENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(A)PYRENE	<0.066	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(A)PYRENE-LBS	<0.000018 8515	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(B)FLUORANTHENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(B)FLUORANTHENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(GHI)PERYLENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(GHI)PERYLENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(K)FLUORANTHENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	BENZO(K)FLUORANTHENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	DIBENZO(AH)ANTHRACENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	DIBENZO(AH)ANTHRACENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM

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ALCOA Massena Operations  
Analytical Report  
COC Number ALC12348

4/3/2018 10:41 AM

Sample Description E001-24HR-WA-061417

Sample ID AA1700473

Sample Date 6/14/2017 12:01:00 AM

Priority 4

Project Number

Customer

Sampled by V-Kingsl

Analysis	Parameter	Results	Units	Prep Date	Analysis Date
	LDS	5388		AM	
*PAH_610	FLUORANTHENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	FLUORANTHENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	FLUORENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	FLUORENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	INDENO(1,2,3-CD)PYRENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	INDENO(1,2,3-CD)PYRENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	NAPHTHALENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	NAPHTHALENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	PHENANTHRENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	PHENANTHRENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	POLYNUCLEAR AROMATICS-AVG	0	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	POLYNUCLEAR AROMATICS-AVG-LBS	0	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	POLYNUCLEAR AROMATICS-MAX	0	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	POLYNUCLEAR AROMATICS-MAX-LBS	0	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	P-TERPHENYL	93	%	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	PYRENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	PYRENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	Total PAH	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610	Total PAH LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM

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ALCOA Massena Operations  
Analytical Report  
COC Number ALC12348

4/3/2018 10:41 AM

Sample Description E001-24HR-WA-061417

Sample ID AA1700473

Sample Date 6/14/2017 12:01:00 AM

Priority 4

Project Number

Customer

Sampled by V-Kingsl

<u>Analysis</u>	<u>Parameter</u>	<u>Results</u>	<u>Units</u>	<u>Prep Date</u>	<u>Analysis Date</u>
*TDS	TDS	235.00	mg/L		6/19/2017 12:00:00 AM
*TDS	TDS -LBS	67.1	lbs/day		6/19/2017 12:00:00 AM
*TSS	TSS	<1.00	mg/L		6/19/2017 12:00:00 AM
*TSS	TSS -LBS	<0.29	lbs/day		6/19/2017 12:00:00 AM
*TSS	TSS_AVG		ppm		6/19/2017 12:00:00 AM
FLOW	Flow_gpd	34248	gpd		6/26/2017 10:55:19 AM
FLOW	Flow_mgd	0.034248	mgd		6/26/2017 10:55:19 AM
*SULFATE	Sulfate	62.40	MG/L		6/22/2017 12:00:00 AM
*SULFATE	SulfateLBS	18	lbs/day		6/22/2017 12:00:00 AM
*PAH_610B	CHRYSENE	<0.380	ug/L	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM
*PAH_610B	CHRYSENE-LBS	<0.000108 5388	lbs/day	6/16/2017 12:00:00 AM	6/19/2017 12:00:00 AM

\* Analyzed by outside Laboratory

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ALCOA Massena Operations  
Analytical Report  
COC Number ALC12348

4/3/2018 10:41 AM

Sample Description E001-GRAB-WA-061417

Sample ID AA1700475

Sample Date 6/14/2017 9:35:00 AM

Priority 4

Project Number

Customer

Sampled by V-Kingsl

Analysis	Parameter	Results	Units	Prep Date	Analysis Date
FILTBYP001	Bypass	No			6/14/2017 10:20:33 AM
*OIL_GREASE	OIL AND GREASE -Matrix Spike	89	% RECOVER Y		6/19/2017 12:00:00 AM
*OIL_GREASE	OIL AND GREASE	<4.70	mg/L		6/19/2017 12:00:00 AM
*OIL_GREASE	OIL AND GREASE -LBS	<4.156	lbs/day		6/19/2017 12:00:00 AM
*PCB_608	A1260%	79	%	6/15/2017 12:00:00 AM	6/16/2017 12:00:00 AM
*PCB_608	Decachlorbiphenyl_MS	53	%	6/15/2017 12:00:00 AM	6/16/2017 12:00:00 AM
*PCB_608	Tetrachlor-m-xylene_MS	73	%	6/15/2017 12:00:00 AM	6/16/2017 12:00:00 AM
*PCB_608	Aroclor 1242	<0.065	ppb	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1242 - LBS	<0.000057 4821	lbs/day	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1248	<0.065	ppb	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1248 - LBS	<0.000057 4821	lbs/day	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1254	<0.065	ppb	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1254 - LBS	<0.000057 4821	lbs/day	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1260	<0.065	ppb	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Aroclor 1260 - LBS	<0.000057 4821	lbs/day	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Decachlorbiphenyl	57	%	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
*PCB_608	Tetrachlor-m-xylene	74	%	6/15/2017 8:10:00 PM	6/16/2017 7:06:00 PM
FLOW	Flow_gpd	106036	gpd		6/26/2017 10:52:40 AM
FLOW	Flow_mgd	0.106036	mgd		6/26/2017 10:52:40 AM
PH	pH	7.50	SU		6/14/2017 10:20:34 AM
SIGN_STAT	Sign Status	Present			6/14/2017 10:20:35 AM
TEMPER	Temperature	66.2	Fahrenheit		6/14/2017 10:20:36 AM
TEMPER	TemperatureC	19.0	deg_C		6/14/2017 10:20:36 AM
FOAM_STAT	Foam	No Foam		6/14/2017 10:53:31	6/14/2017 10:59:57 AM

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ALCOA Massena Operations  
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Sample Description E001-GRAB-WA-061417

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<u>Analysis</u>	<u>Parameter</u>	<u>Results</u>	<u>Units</u>	<u>Prep Date</u>	<u>Analysis Date</u>
*CYANIDE_TO	TOTAL CYANIDE	<0.0100	mg/L	AM 6/20/2017 12:00:00	6/21/2017 12:00:00 AM
*CYANIDE_TO	TOTAL CYANIDE -LBS	<0.0088	lbs/day	AM 6/20/2017 12:00:00	6/21/2017 12:00:00 AM
*CYANIDE_TO	TOTAL CYANIDE -Matrix Spike	98	%	AM 6/20/2017 12:00:00	6/21/2017 12:00:00 AM
*CYANIDE_TO	TOTAL CYANIDE -Matrix Spike Duplicate	94	%	AM 6/20/2017 12:00:00	6/21/2017 12:00:00 AM
*CYANIDE_TO	TOTAL CYANIDE -Spike Difference	4	SU	AM 6/20/2017 12:00:00	6/21/2017 12:00:00 AM

\* Analyzed by outside Laboratory

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